



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,849	02/26/2002	Neal Zahn	WIN825/01830	6832

24118 7590 09/09/2004
HEAD, JOHNSON & KACHIGIAN
228 W 17TH PLACE
TULSA, OK 74119

EXAMINER

MARX, IRENE

ART UNIT PAPER NUMBER

1651

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/082,849

Applicant(s)

ZAHN ET AL.

Examiner

Irene Marx

Art Unit

1651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5,9,11 and 12 is/are pending in the application.
- 4a) Of the above claim(s) 11 and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5 and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1651

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/24/04 has been entered.

Claims 1-2, 4-5, and 9 are being examined on the record. Claims 3, 6-7, 10-16 are cancelled/withdrawn from consideration

The amendment presented fails to comply with the **Revised Amendment Format 37 CFR 1.121**. Claim 3, 6-7, 10-16 are designated "currently cancelled". The correct designation is "cancelled", without reiteration of the corresponding text. In addition applicant states that claims 11 and 12 are cancelled. However, the claims as filed read "withdrawn" for claims 11 and 12. Correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 8 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

No basis or support is found in the present specification for the presence of 25-97.9% of "other straw or grain products" as recited in claim 8. The range of 25-97.9% appears to pertain to the concentration of barley straw based on the examples and not of "other" components. The basis for the claimed limitation is not clearly delineated in the response.

Therefore, this material constitutes new matter and should be deleted.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 1651

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-2, 4-5, and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is vague and indefinite in the recitation of "associated beneficial hydrolytic enzymes. It cannot be determined how the enzymes are associated with the microorganisms. Also it is uncertain whether the soluble catabolic breakdown products are or are not "associated" with the microorganisms. The origin and/or nature of the "catabolic breakdown products" cannot be determined. Accordingly, the nature and properties of the "fermentation composition" as claimed cannot be readily determined. The terminology "fermentation composition" does not clarify whether the composition as claimed is the product of a fermentation process or a product ready to be fermented in an aquatic environment. The process of comminuting does not produce a "fermentation product".

From claims 4 and 5 it is apparent that fermentation is not required for activation, since the composition of claim 1 is "activated" as claimed. Claim 5 fails to find proper antecedent basis in claim 1, for "during the fermentation of the organic matrix", since claim 1 lacks such a fermentation step.

Claim 9 is confusing in the recitation of "barley and/or grain", since barley appears to be a grain.

Therefore the metes and bounds of the invention are unclear.

Claims 1-2, 4-5, and 9 are/remain rejected under 35 U.S.C. 103(a) as being unpatentable over Ely *et al.* taken with Richards *et al.* and Jeffreys for the reasons as stated in the last Office action and the further reasons below.

Response to Arguments

Applicant's arguments have been fully considered but they are not deemed to be persuasive.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching,

Art Unit: 1651

suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, all of the references, Ely *et al.*, Richards *et al.* and Jeffreys are similarly directed to fermentation compositions comprising an organic matrix of a similar constitution as claimed, since the reference compositions would reasonably be expected to comprise barley straw at least to some extent, and similarly comprise saprophytic bacteria, including ubiquitous *Bacillus* species such as *B. subtilis* and *B. megaterium*, as well as associated hydrolytic enzymes and catabolic products of barley straw. It is noted that the catabolic products of barley straw would reasonably be expected to be the same or very similar to the catabolic products of any straw or bran degradation. It is noted that the invention as claimed does not require a particular amount of barley straw in the compositions. See, for example, Ely *et al.* for the specific use of *B. subtilis* to degrade wheat bran products (col. 3). In addition Jeffreys is relied upon for teachings of a dried composition which appears to be granular at least to some extent. (See, e.g., Examples IV and VIII). This material is disclosed as suitable for the treatment of aquatic environments, such as an algal lagoon. The saprophytic bacteria would reasonably be expected to include *Bacillus* (See, e.g., col. 4, lines 63-71).

Furthermore, at least in claims 4-6 the composition is claimed as a product-by-process. Since the Patent and Trademark Office is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make comparisons therewith, a lesser burden of proof is required to make out a case of prima facie obviousness for product-by-process claims because of their peculiar nature than when a product is claimed in the conventional manner. MPEP 2113.

Applicant has not presented objective evidence to demonstrate unexpected properties of the composition as claimed to patentably distinguish the claimed composition over the combined teachings of the references. There is no clear correlation between the invention as claimed and the unexpected results argued. For example, counsel argues that the claimed composition can be made in 90 hours and the reference compositions cannot. The arguments by counsel in this regard have not been substantiated with appropriate evidence. It is well settled that arguments by counsel do not constitute evidence. It is apparent that the reference compositions and the

Art Unit: 1651

claimed compositions have very similar, if not the same, components. Therefore, one of ordinary skill in the art would reasonably have expected a similar process of making. This process is not part of the invention as claimed, in any event. In addition, arguments directed to the clarification of water are not relevant to the invention as claimed. It is also noted that the addition of fertilizer to water and concomitant pollution are unrelated to the compositions in the references or the composition as claimed.

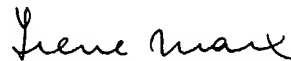
Therefore, the rejection is deemed proper and it is maintained.

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irene Marx whose telephone number is 571-272-0919. The examiner can normally be reached on M-F (6:30-3:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Wityshyn can be reached on (571) 272-0926. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-9000.



Irene Marx
Primary Examiner
Art Unit 1651